

WHAT IS CLAIMED IS:

1. A centrifugal pump comprising a casing having two casing sections defining a casing cavity; an electrical motor comprising a motor casing having two ends and a side positioned therebetween mounted inside the casing cavity having a motor shaft protruding from one of the ends, a seal mounted on the motor shaft for deterring fluids from leaking into an interior space of the motor casing, an impeller mounted on an end of the motor shaft adjacent the seal; and a flow channel formed between an inlet nozzle and an outlet nozzle inside the casing cavity adapted to permit fluids drawn from the inlet nozzle to flow over at least a portion of the side of the electrical motor to cool the electrical motor before exiting the outlet nozzle.

2. The centrifugal pump of claim 1, wherein the casing comprises a geometrical shape comprising a large mid-section and two tapered ends.

3. The centrifugal pump of claim 2, wherein the inlet nozzle is positioned on one of the tapered ends and the outlet nozzle is positioned on the other tapered end.

4. The centrifugal pump of claim 1, wherein the impeller is a closed impeller.

5. The centrifugal pump of claim 1, further comprising a pump base.

6. The centrifugal pump of claim 1, wherein the motor comprises a motor flange and wherein a mounting gland is compressed against the motor flange with an O-ring compressed therebetween.

7. The centrifugal pump of claim 1, wherein one of the two casing sections comprises a terminal nozzle for terminating a power cord.

8. A method for pumping fluids using a centrifugal pump comprising:
connecting an inlet line and an outlet line to a pump casing, the pump casing comprising an inlet nozzle and an outlet nozzle,

turning on an electrical motor comprising a motor casing having two ends, a side positioned therebetween, and a motor shaft extending through one of the ends,

passing fluids through the inlet nozzle and out the outlet nozzle by generating a suction at the inlet nozzle with an impeller mounted on an end of the motor shaft;

detering seepage of fluids into an interior cavity of the electrical motor by sealing the end with the motor shaft with a dynamic packing or a mechanical seal;

cooling the electrical motor by providing a flow passage between the inlet nozzle and the outlet nozzle and allowing at least a portion of the fluids to flow pass at least a portion of the side of the motor casing before exiting the outlet nozzle.

9. The method for pumping fluids of claim 8, wherein the casing comprises a geometrical shape having a large mid section and two tapered ends.

10. The method for pumping fluids of claim 8, wherein the impeller is a closed impeller.

11. The method for pumping fluids of claim 8, wherein the electrical motor comprises a power lead connected to a power cord, and wherein the power cord extends through a terminal nozzle located on the casing.

12. The methods for pumping fluids of claim 9, wherein the inlet nozzle and the outlet nozzle are located on the tapered ends.

13. The methods for pumping fluids of claim 9, wherein the casing comprises a parting line sealed by fastening a plurality of fastener means and compressing a compressible seal therebetween.

14. A centrifugal pump comprising an electrical motor having a motor shaft and an impeller mounted on the motor shaft positioned inside an interior cavity of a casing having a parting line, the casing comprising an inlet nozzle on one side of the parting line and an outlet nozzle on an opposite side of the parting line, a flow channel extends between the inlet nozzle

and the outlet nozzle with at least a portion of the flow channel is defined by the casing and an outside section of the electrical motor; and at least one support leg located on an exterior surface of the casing for supporting the centrifugal pump.

15. The centrifugal pump of claim 14, wherein the outside section of the electrical motor that defines part of the flow channel comprises a motor electrical cover positioned over an end of the electrical motor comprising an indentation section.

16. The centrifugal pump of claim 15, further comprising a mounting gland mounted to the motor electrical cover with a gasket or an O-ring positioned therebetween.

17. The centrifugal pump of claim 14, wherein the casing has a football shape configuration.

18. The centrifugal pump of claim 14, wherein the impeller is a closed impeller.

19. The centrifugal pump of claim 14, further comprising a pump base attached to the at least one support leg.

20. The centrifugal pump of claim 14, wherein the motor is rated for 110-volt service.

21. A centrifugal pump comprising a casing having two casing sections removeably attached to one another at a parting line, the two casing sections defining an interior cavity having an electrical motor comprising a motor housing having a motor shaft extending from an end of the motor housing and having an impeller mounted on the motor shaft, wherein the casing comprises a geometrical shape having a large mid-section and two tapered ends with an inlet nozzle on one of the tapered ends and a outlet nozzle on the other tapered end.